| Office Action Summary   10/583,688   KIM ET AL.  |   |  |  |  |  |  |  |  |  |
|--|---|--|--|--|--|--|--|--|--|
| Office Action Summary  |   |  |  |  |  |  |  |  |  |
| Examiner Art Unit  |   |  |  |  |  |  |  |  |  |
| YEWEBDAR T. TADESSE 1792   |   |  |  |  |  |  |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply   |   |  |  |  |  |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). |   |  |  |  |  |  |  |  |  |
| Status   |   |  |  |  |  |  |  |  |  |
| 1) Responsive to communication(s) filed on   |   |  |  |  |  |  |  |  |  |
| 2a) ☐ This action is <b>FINAL</b> . 2b) ☒ This action is non-final.  |   |  |  |  |  |  |  |  |  |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is   |   |  |  |  |  |  |  |  |  |
| closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  |   |  |  |  |  |  |  |  |  |
| Disposition of Claims  |   |  |  |  |  |  |  |  |  |
| 4)⊠ Claim(s) <u>1-3</u> is/are pending in the application.   |   |  |  |  |  |  |  |  |  |
| 4a) Of the above claim(s) is/are withdrawn from consideration.   |   |  |  |  |  |  |  |  |  |
| 5) Claim(s) is/are allowed.  |   |  |  |  |  |  |  |  |  |
| 6)⊠ Claim(s) <u>1 and 3</u> is/are rejected.   |   |  |  |  |  |  |  |  |  |
| 7)⊠ Claim(s) <u>2</u> is/are objected to.  |   |  |  |  |  |  |  |  |  |
| 8) Claim(s) are subject to restriction and/or election requirement.  |   |  |  |  |  |  |  |  |  |
| Application Papers   |   |  |  |  |  |  |  |  |  |
| 9) The specification is objected to by the Examiner.   |   |  |  |  |  |  |  |  |  |
| 10)⊠ The drawing(s) filed on <u>20 June 2006</u> is/are: a) accepted or b)⊠ objected to by the Examiner.   |   |  |  |  |  |  |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  |   |  |  |  |  |  |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).   |   |  |  |  |  |  |  |  |  |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.   |   |  |  |  |  |  |  |  |  |
| Priority under 35 U.S.C. § 119   |   |  |  |  |  |  |  |  |  |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of:   |   |  |  |  |  |  |  |  |  |
| 1. Certified copies of the priority documents have been received.  |   |  |  |  |  |  |  |  |  |
| 2. Certified copies of the priority documents have been received in Application No   |   |  |  |  |  |  |  |  |  |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage  |   |  |  |  |  |  |  |  |  |
| application from the International Bureau (PCT Rule 17.2(a)).  |   |  |  |  |  |  |  |  |  |
| * See the attached detailed Office action for a list of the certified copies not received.   |   |  |  |  |  |  |  |  |  |
|  |   |  |  |  |  |  |  |  |  |
| Attachment(s)  |   |  |  |  |  |  |  |  |  |
| 1) Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413)  |   |  |  |  |  |  |  |  |  |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) Paper No(s)/Mail Date  | 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) Paper No(s)/Mail Date |  |  |  |  |  |  |  |  |
| Information Disclosure Statement(s) (PTO/SB/08)  Paper No(s)/Mail Date 04/30/2007.  5) Notice of Informal Patent Application 6) Other:   |   |  |  |  |  |  |  |  |  |

Receipt date: 04/30/2007

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PTO/SB/21 (04-04)

| F                   | Approved for use | through 07/3 | 1/2008. ON | 18 0651-0031 |
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| 1 1  | Application Number                          | 10/583.688  |
| TO ALIONAITT AL  |   | 10,000,000  |
| TRANSMITTAL  | Filing Date                                 | June 20, 2006   |
| FORM   | b \\  | 12.10 20, 2000  |
| /! ***   | RFirst Named Inventor                       | Hyung-Jun KIM   |
| (to be used for all correspondence after initial filling)  |   | .,,,  |
| (to be used for all correspondence latter initial filling)   | Art Unit                                    | 1762  |
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| The same of the sa | -Examiner Name                              |   |
| THE WASH   | <u></u>                                     |   |
|  | Attorney Docket Number                      | 1455-061789   |
| Total Number of Pages in This Submission   |   |   |
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| ENCLOSURES (Check all that apply)  |      |   |     |  |  |  |  |  |
|--|------|---|-----|--|--|--|--|--|
| ☐ Fee Transmittal Form   |      | Drawing(s) Licensing-related Papers                               | 0   | After Allowance communication to Technology Center (TC)        |  |  |  |  |
| ☐ Fee Attached ☐ Amendment/Reply   |      | Petition  |     | Appeal Communication to Board of Appeals and Interferences     |  |  |  |  |
| ☐ After Final  |      | Petition to Convert to a<br>Provisional Application               | ۵   | Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) |  |  |  |  |
| ☐ Affidavits/declaration(s) ☐ Extension of Time Request  |      | Power of Attorney, Revocation<br>Change of Correspondence Address |     | Proprietary Information  |  |  |  |  |
| ☐ Express Abandonment Request  |      | Terminal Disclaimer   |     | Status Letter Other Enclosure(s) (please                       |  |  |  |  |
| <ul> <li>☑ Information Disclosure Statement</li> <li>☐ Certified Copy of Priority Documents</li> </ul> |      | Request for Refund  CD, Number of CD(s)                           |     | identify below)  |  |  |  |  |
| Response to Missing Parts/     Incomplete Application  |      | marks   |     |  |  |  |  |  |
| ☐ Response to Missing Parts under 37 CFR 1.52 or 1.53  |      |   |     |  |  |  |  |  |
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| SIGNATUI   | RE ( | OF APPLICANT, ATTORNEY, OR A                                      | AGE | NT   |  |  |  |  |
| Firm Kent E. Baldauf The Webb Law Firm Individual name   |      |   |     | •  |  |  |  |  |
| Signature April 25, 2007   | ale  | dent_   |     |  |  |  |  |  |

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Typed or printed name Diane Paull

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THEEDNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.

APR 3 0 2007 Applicants<sup>1</sup> بي/Hyung-Jun KIM et al.

10/583,688

Confirmation No. 4502

Filed

June 20, 2006

Title

Cold Spray Apparatus Having Powder Preheating Device

Art Unit

1762

Examiner

Customer No.

28289

INFORMATION DISCLOSURE STATEMENT TRANSMITTED BEFORE MAILING OF FIRST OFFICE ACTION

MAIL STOP AMENDMENT Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Pursuant to 37 C.F.R. §§1.56, 1.97 and 1.98, Applicants hereby submit this Information Disclosure Statement together with a completed Form PTO/SB/08a.

This application is the United States national phase of PCT Application No. PCT/KR2002/003395. The International Search Report dated April 11, 2005, for the underlying PCT application identified two United States references and two Korean references. KR 99-007365 is equivalent to U.S. Patent No. 6,110,544; and KR 10-0245,231 is equivalent to U.S. Patent No. 5,855,965. The two Korean references and four U.S. references are listed on Form PTO/SB/08a. Copies of the foreign references are being submitted with this Information Disclosure Statement as well as a copy of the International Search Report. The degree of relevance for these references is indicated in the International Search Report.

The remaining references are cited on pages 2 and 3 of the instant specification.

U.S. Patent Application Publication No. US 2001/0042508 cited in the specification has now issued as U.S. Patent No. 6,502,767.

U.S. Patent Application Publication No. US 2001/0042508 has issued as U.S. Patent No. 6,502,767.

> I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450. Alexandria, Virginia 22313-1450 on April 25, 2007. Diane Paull (Name of Person Mailing Document)

Signature

(W0297367.1)

04/25/2007



U.S. Patent Application Publication No. US 2002/0033135 has issued as U.S. Patent No. 6,722,584.

U.S. Patent Application Publication No. US 2002/0102360 has issued as U.S. Patent No. 6,444,259.

U.S. Patent Application Publication No. US 2002/0182311 has issued as U.S. Patent No. 6,592,935

U.S. Patent Application Publication No. US 2002/0182313 has issued as U.S. Patent No. 6,773,763.

Pursuant to 37 CFR §1.98, no copies of the United States patents are enclosed.

No fee is believed to be due for the filing of this Information Disclosure Statement as it is being submitted before a first Office Action on the merits. Nevertheless, the Commissioner for Patents is hereby authorized to charge any additional fees which may be required to Deposit Account No. 23-0650. This Information Disclosure Statement is submitted in duplicate.

Respectfully submitted,

THE WEBB LAW FIRM

Registration No. 25,826 Attorney for Applicants

700 Koppers Building 436 Seventh Avenue

Pittsburgh, PA 15219 Telephone: 412-471-8815 Facsimile: 412-471-4094



Receipt date: 04/30/2007 APR 3 0 2007

PTO/SB/08a (07-05)

Approved for use through 07/31/2006. OMB 0651-0031

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| MEODE                  | ATION             | NOO! OO      | UDE | Application Number     | 10/583,688    |  |
|                        | IATION [          |              |     | Filing Date            | June 20, 2006 |  |
| STATEMENT BY APPLICANT |                   |              |     | First Named Inventor   | Hyung-Jun KIM |  |
| (Use                   | as many sheets as | s necessary) |     | Art Unit               | 1762          |  |
| ,000                   |                   |              |     | Examiner Name          |               |  |
| Sheet                  | 1                 | of           | 1   | Attorney Docket Number | 1455-061789   |  |

|                       |                          |     |  | U.S. PATENT D                  | OCUMENTS   |  |
|-----------------------|--------------------------|-----|--|--------------------------------|--|--|
| Examiner<br>Initials* | Cite<br>No. <sup>1</sup> |     | ocument Number<br>er - Kind Code <sup>2 (if known)</sup> | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines,<br>Where Relevant<br>Passages or Relevant<br>Figures Appear |
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|--------------------------|--------------|----------|----------------------|----|--------------------------------|--|---|----|--|
| Examiner Initials*       | Cite<br>No.1 | C        | Foreign Patent Docum |    | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines,<br>Where Relevant Passages<br>or Relevant Figures Appear | T⁵ |  |
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| Examiner  | Marria dan T Tadasasi   | Date       | 1 00000000 |
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| Signature | (   EWEDUAL     AUESSE/ | Considered | 12/10/2000 |
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## (19) United States

## (12) Patent Application Publication (10) Pub. No.: US 2002/0073982 A1 Shaikh et al.

(43) Pub. Date: Jun. 20, 2002

(54) GAS-DYNAMIC COLD SPRAY LINING FOR ALUMINUM ENGINE BLOCK CYLINDERS

(76) Inventors: Furqan Zafar Shaikh, Troy, MI (US); Howard Douglas Blair, Romulus, MI (US); Rodney John Tabaczynski, Northville, MI (US); Tsung-Yu Pan, Ypsilanti, MI (ÙS)

> Correspondence Address: Ernest E. Helms Dykema Gossett PLLC Suite 300 1577 North Woodward Avenue Bloomfield Hills, MI 48304-2820 (US)

(21) Appl. No.: 09/739,087 (22) Filed: Dec. 16, 2000

## **Publication Classification**

Int. Cl.<sup>7</sup> ...... F02D 41/00; B23P 11/00 

## (57)ABSTRACT

A method and apparatus for gas-dynamic cold spraying a liner 3 in a cylinder 2 of an aluminum engine block 1 is provided. The gas-dynamic cold spray liner 3 allows the aluminum engine block 1 to have a hardened cylinder surface 10 without the induction of residual hoop stress within the aluminum engine block 1.

